



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,135	11/21/2001	Toshiyuki Hagihara	2001-1126A	1742
513 7590 07/20/2009 WENDEROTH, LIND & PONACK, L.L.P. 1030 15th Street, N.W., Suite 400 East Washington, DC 20005-1503				
EXAMINER				
JONES, HEATHER RAE				
ART UNIT		PAPER NUMBER		
2621				
MAIL DATE		DELIVERY MODE		
07/20/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/914,135

**Applicant(s)**

HAGIHARA ET AL.

**Examiner**

HEATHER R. JONES

**Art Unit**

2621

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-17 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2001 and 06 November 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 12-17 and 19-23 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12-14, 16, 18, 19, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. (U.S. Patent 5,978,546) in view of Kroeger et al. (U.S. Patent 6,178,317) in view of Louth (U.S. Patent 4,635,138).

Regarding claim **12**, Abe et al. discloses an audio output control device comprising: digital audio signal reproduction means for reproducing digital audio signals recorded on a tape; analog audio signal reproduction means for reproducing analog audio signals recorded on the tape; and audio output switching means for switching between an output signal of said digital audio signal reproduction means and an output signal of said analog audio signal reproduction means; wherein, when the tape is being driven at a normal playback speed, said audio output switching means is switched so that the output signal of said digital audio signal reproduction means is output, wherein when the tape is

being driven at a certain speed exceeding the normal playback speed of the tape, said audio output switching means is switched so that the output signal of said analog signal reproduction means is output (Fig. 5 – reproducing system; Fig. 8 – flowchart for controlling the digital and audio output based on tape speed; col. 7, line 48 – col. 8, line 15). However, Abe et al. fails to disclose a delay circuit provided between said analog audio signal reproduction signal reproduction means and said audio output switching means, wherein a delay time of said delay circuit is controlled based on VTR tape speed information and wherein the delay time is controlled in a manner such that the delay time is made greater as the tape speed indicated by the VTR tape speed information increases.

Referring to the Kroeger et al. reference, Kroeger et al. discloses an audio output control device comprising a delay circuit is provided between said analog audio signal reproduction means and said audio output switching means (col. 7, lines 10-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a delay circuit as disclosed by Kroeger et al. in the device disclosed by Abe et al. in order to have the decoded digital waveform time synchronized with the analog waveform. However, Abe in view of Kroeger et al. still fail to disclose that the delay time of said delay circuit is controlled based on VTR tape speed information and wherein the delay time is

controlled in a manner such that the delay time is made greater as the tape speed indicated by the VTR tape speed information increases..

Referring to the Louth reference, Louth discloses a reproduction output control device comprising a delay circuit, wherein the delay time of said delay circuit is controlled based on VTR tape speed information and wherein the delay time is controlled in a manner such that the delay time is made greater as the tape speed indicated by the VTR tape speed information increases (col. 35, line 55 – col. 36, line 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to based the delay time on the VTR tape speed information as disclosed by Louth in view of Abe et al. in view of Kroeger et al. in order to accommodate for the greater amount of frames that are being skipped to comply with the playback speed as well as to accommodate for the time it takes to decode the frames that are being reproduced.

Regarding claim **13**, Abe et al. in view of Kroeger et al. in view of Louth discloses all the limitations as previously discussed with respect to claim 12 as well as the audio output control device further comprising a microcomputer, wherein said microcomputer controls said audio output switching means (Abe et al.: col. 7, lines 7-15; col. 7, line 48 – col. 8, line 15 – the microcomputer determines when to switch from the digital output to the analog output).

Regarding claim **14**, Abe et al. in view of Kroeger et al. in view of Louth discloses all the limitations as previously discussed with respect to claim 12

including the control of said audio output switching means is performed by a circuit structure other than a microcomputer (Abe et al.: Fig. 5 - switching circuit "100"; col. 11, lines 1-17).

Regarding claim **16**, Abe et al. in view of Kroeger et al. in view of Louth discloses all the limitations as previously discussed with respect to claim 12 including that the switching control of said audio output switching means from the output signal of said digital audio signal reproduction means to the output signal of said analog audio signal reproduction means is performed based on the VTR tape speed information (Abe et al.: Fig. 8; col. 7, lines 7-15; col. 7, line 48 – col. 8, line 15).

Regarding claim **19**, Abe et al. in view of Kroeger et al. in view of Louth discloses all the limitations as previously discussed with respect to claims 12 and 16 including that the VTR tape speed information is obtained from a time code reproduced from the tape or from a servo control circuit (Abe et al.: col. 7, lines 7-15).

Regarding claim **21**, Abe et al. in view of Kroeger et al. in view of Louth discloses all the limitations as previously discussed with respect to claims 12 and 18 including that the VTR tape speed information is obtained from a time code reproduced from the tape or from a servo control circuit (Abe et al.: col. 7, lines 7-15).

Regarding claim **23**, Abe et al. in view of Kroeger et al. in view of Louth discloses all the limitations as previously discussed with respect to claim 12

including that the audio output switching means is switched so that the output signal of said analog signal reproduction means is output so as to enable monitoring of audio signals during high-speed playback (Abe et al.: col. 7, lines 7-15).

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. in view of Kroeger et al. in view of Louth as applied to claim 12 above, and further in view of Nakamura (U.S. Patent 5,299,267).

Regarding claim **15**, Abe et al. in view of Kroeger et al. in view of Louth discloses all the limitations as previously discussed with respect to claim 12, but fails to disclose that the audio output switching means performs switching by inputting output signals of said digital audio signal reproduction means and output signals of said analog audio signal reproduction means, mixing both of the output signals of said digital audio signal reproduction means and the output signals of said analog audio signal reproduction means, and continuously and gradually changing the mixing ratio thereof.

Referring to the Nakamura reference, Nakamura discloses an audio output control device wherein the audio output switching means performs switching by inputting output signals of said digital audio signal reproduction means and output signals of said analog audio signal reproduction means, mixing both of the output signals of said digital audio signal reproduction means and the output signals of said analog audio signal reproduction means, and continuously and gradually changing the mixing ratio thereof (col. 2, lines 25-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a mixing ratio when changing from a digital audio signal to an analog audio signal and vice versa as disclosed by Nakamura in the device disclosed by Abe et al. in view of Kroeger et al. in view of Louth in order to allow the device to change the setting of mixing to output an optimal signal as suggested by Nakamura (col. 1, lines 40-45).

5. Claims 17, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. in view of Kroeger et al. in view of Louth as applied to claim 12 above, and further in view of Yanagawa et al. (U.S. Patent 6,178,288).

Regarding claim **17**, Abe et al. in view of Kroeger et al. in view of Louth discloses all the limitations as previously discussed with respect to claim 12, but fails to disclose that the switching control of said audio output switching means from the output signal of said digital audio signal reproduction means to the output signal of said analog audio signal reproduction means is performed based on digital audio signal reproduction error information.

Referring to the Yanagawa et al. reference, Yanagawa et al. discloses an audio output control device wherein the switching control of said audio output switching means from output signal of said digital audio signal reproduction means to output signal of said analog audio signal reproduction means is performed based on digital audio signal reproduction error information (Fig. 4; col. 14, lines 15-39).



Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included controlling the switching means based on digital audio signal reproduction error information as disclosed by Yanagawa et al. in the device disclosed by Abe et al. in view of Kroeger et al. in view of Louth in order to accurately determine when to switch outputs to maximize the quality of audio, especially when one output has several errors in it.

Regarding claim **20**, Abe et al. in view of Kroeger et al. in view of Louth in view of Yanagawa et al. discloses all the limitations as previously discussed with respect to claims 12 and 17, including that the VTR tape speed information is obtained from a time code reproduced from the tape or from a servo control circuit (Abe et al.: col. 7, lines 7-15).

Regarding claim **22**, Abe et al. in view of Kroeger et al. in view of Louth in view of Yanagawa et al. discloses all the limitations as previously discussed with respect to claims 12 and 17, including that the digital audio signal reproduction error information is the number of syncs per frame being equal to or less than a predetermined value, or an existence of an error flag (Yanagawa et al: Fig. 4; col. 14, lines 15-39).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEATHER R. JONES whose telephone number is

(571)272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heather R Jones  
Examiner  
Art Unit 2621

HRJ  
July 15, 2009

/HUY T NGUYEN/  
Primary Examiner, Art Unit 2621